

**U.S. Environmental Protection Agency Institutional Controls Tracking System
Non-Regulated Industry Focus Group**

October 8, 2002
Washington, DC
EPA West

Purpose

The purpose of this focus group was to gather the expertise of non-regulated industry representatives to discuss development of an electronic tracking system for institutional controls (ICs). The focus group also provided a forum for participants to share their opinions on the challenges of IC tracking.

The following participants attended the focus group:

Mike Bellot, US Environmental Protection Agency (EPA)/Office of Emergency and Remedial Response (OERR)
Bob Cribbin, US Army Corps of Engineers (USACE)
Dr. Arnold Gray, Earthsoft
Greg Jordan, EPA/Office of Brownfields Cleanup and Remediation (EPA/OBCR)
Kevin Mathews, Director of Association & Governmental Relations, American International Group, Environmental Insurance Division
Kate Morrissey, Environmental Data Resource, Incorporated (EDR, Inc.)
Alan O'Connor, First Search
Brett Perry, Owner, NETRonline
Kelly Romeo, American Land and Title Association (ALTA)
Bob Wenzlau, Terradex
Dr. Larry Zaragoza, EPA /OERR
Maureen Findorff, Marasco-Newton Group (MNG)
Stephen Merrill Smith, DynCorp
Matthew Hayduk, DynCorp
Keith Hagg, DynCorp
Sa'ad Masri, DynCorp

Mr. Bellot welcomed the participants to the meeting. He said that this focus group meeting was one of several held by EPA on the development of an IC tracking system. Mr. Bellot briefly discussed the EPA Headquarters Focus Group, which met on June 5, 2002, the State and Tribal Focus Group, which met on June 18 - 19, 2002, and the Regional Focus Group, which met on June 26 - 27, 2002. He said that EPA will hold a Local Government Tracking System Focus Group on October 10 - 11, 2002.

EPA IC Tracking System Concept

Mr. Bellot discussed the background and objectives of EPA's IC Tracking System. EPA defines ICs as administrative or legal controls that are intended to maintain the integrity of a remedy and help minimize the potential for human exposure to contamination. This definition comports with

language in the National Contingency Plan. It also distinguishes ICs from engineered controls, examples of which are caps or other containment devices used to prevent human exposure to residual contamination. EPA considers the issues surrounding the use of ICs to be different from those that arise from the use of engineered controls.

ICs are important components of remedies for sites addressed by various state and federal programs. Usually, ICs are implemented and monitored by parties other than EPA. The current Superfund tracking system – the Comprehensive Environmental Response Compensation and Liability Information System 3 (CERCLIS 3) – contains limited information on ICs despite their wide-spread use at Superfund sites. CERCLIS 3 does not answer important questions about ICs and lacks fundamental data about their ability to control access and protect human health and environment. During the past ten years, ICs have been incorporated into remedies for sites addressed under various federal and state programs. Currently, there are nine databases that track ICs. These databases - like CERCLIS 3 - lack data necessary to determine if ICs effectively protect human health and environment from residual contamination.

EPA's goal is to create a reliable IC tracking system that is coordinated with existing federal, state and local databases. The Navy operates IC tracking system with Geographic Information Systems (GIS) capabilities. This system, however, does not have information on ICs beyond that which existed at the time when the site was transferred from Navy control. The Department of Energy has considered creating a tracking system but has not developed one as of yet. Several states have tracking systems in place.

EPA surveyed its Regional Offices to determine what type of IC information was available. Currently, EPA Regions 1, 4, 6, 8, 9 and 10 do not have IC tracking systems. They rely exclusively on the information contained in CERCLIS 3. EPA Regions 2 and 3 have a limited IC tracking system. EPA Region 5 operates a more complete IC tracking system. The regions reported dissatisfaction with current IC tracking systems. In addition, the Brownfields legislation may help state and local governments to start their own IC tracking systems, and to ultimately be a part of EPA's national IC tracking system.

In most cases, Regional data on ICs was unavailable. ICs were mostly contained in remedy decision documents. There was little implementation or monitoring information. At the local level, IC information was filed under a variety of different systems, and large data gaps were discovered. Much of the IC monitoring activity that EPA assumed was happening at the local level was not occurring.

EPA realized that coordination with regions, federal agencies, states and tribes, communities, NGOs, and non-regulated industry was important to developing a reliable IC tracking system. EPA has sponsored focus groups and information requests to evaluate potential data categories for an IC tracking system. A matrix containing a list of potential data categories was developed. Mr. Bellot told the group that they would discuss these data categories in an effort to identify what information about ICs is most important to non-regulated industry.

As facilitator, Ms. Findorff outlined a four-tier grading scheme so that participants could assign a priority to the importance of each data category.

| Grade | Definition |
|--------------|---|
| A | Data categories that participants assigned the highest priority for tracking purposes |
| B | Data categories where a middle level of tracking priority was assigned, or an average computed due to an equal number Grade A and Grade C votes |
| C | Data categories that participants assigned the lowest priority for tracking purposes |
| D | Data categories that caused strong disagreement |

The facilitator presented the matrix comparing elements tracked by federal systems to the participants, and explained the color key:

| Color | Meaning |
|--------------|--|
| Green | A match between possible EPA data category and a data category that a federal system is already using |
| Light Orange | No match between a possible EPA data category and the data categories used by a federal system -- light orange data categories are also marked “not available” |
| Dark Orange | A data category tracked by a federal system, but not listed in EPA’s possible data categories |
| Teal | A data category not on the EPA list of possible data categories because the category is tracked by EPA in another system such as CERCLIS 3 |

The facilitator also explained that the matrix is divided into six appendices that address different aspects of ICs that may need to be tracked:

- Appendix 1 involves site information data categories,
- Appendix 2 involves IC selection,
- Appendix 3 involves IC implementation,
- Appendix 4 involves IC monitoring and enforcement,
- Appendix 5 involves IC costs, and
- Appendix 6 involves GIS layers that may accompany IC information.

The facilitator said that she wanted to know what the participants thought of the information in those appendices. For instance, she suggested that the participants ask questions about what different data categories mean, whether those categories are important to track, and how

important they are to track (*i.e.*, are they grade A, B, C, or D).

Mr. Bellot offered the non-regulated industry participants an opportunity to discuss their own systems that relate to ICs and other environmental information tracking. Mr. Wenzlau, of Terradex, Inc., discussed a web-based IC tracking system developed by his company. The Terradex system tracks the location of residual contamination and identifies precautions and stewardship responsibilities necessary to protect human health and environment.

There are various users of the Terradex system with a broad range of needs. Through the use of the Terradex system, local land use planning officials can integrate information about contaminated properties into their existing land development systems. With the information provided in the Terradex system, planners can make more informed decisions and prevent potentially dangerous development of contaminated lands restricted by ICs. Construction contractors and developers can also benefit from the information provided in the Terradex system. The information enables construction contractors and developers to take precautions to prevent contact with residual contamination.

The Terradex system is simple. Responsible parties submit restrictions or advisories with the appropriate environmental regulatory agency for review. When the agency approves the restriction or advisory, Terradex distributes the information to local government, water agencies and other stakeholders. Responsible parties pay a nominal fee for the Terradex system, and it is offered as a free resource to government entities and the public.

The facilitator resumed the discussion of the data categories. She asked participants to offer not only their own perspectives but also those of clients and others in the industry. She also said that the group, as industry representatives, could offer insight about costs and accessibility of IC data. Mr. Bellot commented that EPA wants to get a better sense of what data should be shared. Part of this process involves identifying what data exists and that which must be developed.

Prior to discussing the matrixes, the group discussed what type of information is available publicly about ICs. Ms. Romeo asked whether the information associated with IC use was private information. Mr. Smith said that some private information related to ICs could be tracked without making it available to the public. Ms. Romeo commented that her company tracks land rights but not land use. Mr. Bellot asked whether information on an easement could be located by a title search. Ms. Romeo said that an easement could be located for free at a county court house or recorders office because easements implicate land rights. Mr. Bellot commented that covenants and easements will be used more frequently in future site remediation. Ms. Romeo also commented that her clients do not usually ask for information on ICs.

Dr. Zaragoza asked whether information on contamination at a site is available at a county court house. Ms. Romeo commented that a title company could find it but a title search at a court house would not include environmental information. Mr. Perry added that databases at his company usually do not include information on environmental easements. Because accurate

information on easements is difficult to find, his company charges clients a higher rate for such information.

Mr. Bellot asked whether the group would use an IC tracking system to check for easement information. Mr. Perry commented that he would use a free Web-based system to check for easement information. He said that his clients generally do not ask for easement information because it is expensive.

Dr. Gray commented that New Jersey has a deed notice system, but it does not always prevent breaches in protectiveness. At times, these breaches can be costly. He cited a particularly costly example, in which a large housing development was recently built on a tract of land that had a notice of environmental contamination in the deed records. After construction, the property value was lowered because of the environmental contamination. Dr. Gray suggested that based on this example, deed notices are not showing up in property records prior to breaches in protectiveness. Mr. Bellot asked the group if there is a way to prevent construction on properties like the one discussed by Dr. Gray. The group agreed that tracking ICs is necessary to ensure that they are properly implemented and monitored. Without tracking, the group agreed that situations like that discussed by Dr. Gray would likely occur again in the future.

The facilitator asked Mr. O'Connor if First Search tracks ICs. He said that most of the data categories are in the system. He also said, however, that the First Search system is not focused on IC data. Rather, First Search is used for finding land that could be reused in the future. As of right now, system could not offer detailed information on ICs.

The facilitator asked Ms. Morrissey and Mr. O'Connor if their clients need information related to ICs. Mr. O'Connor said that clients are generally not interested in IC information. He suggested that IC data are difficult to find.

Mr. Mathews asked why, from a public policy perspective, EPA wants to create an IC tracking system. Mr. Bellot said that an IC tracking system will make ICs more effective and reliable. A system that identifies breaches of ICs will enhance their effectiveness. Mr. Mathews said that ensuring reliability of ICs would make insurance products sold by his company more affordable. Mr. Mathews asked whether the IC tracking system is intended to encourage site reuse. Mr. Bellot said that reuse of sites was one of several public policy goals of the IC tracking system. Dr. Zaragoza clarified that development of an IC tracking system is needed to show that ICs are working. He said that the goal of reuse is secondary to that objective.

Mr. Wenzlau asked why the national IC tracking network has to be a federal government project rather than a system run by private industry. He suggested that EPA is reaching out to interested parties to gather information with the intention of building a tracking system on its own without taking into consideration the needs of other users. Mr. Bellot responded by saying that EPA sees an increasing role for industry in the development of an IC tracking system. Dr. Zaragoza added that a national IC tracking system will likely be expensive to create and maintain. He emphasized that EPA is responsible for tracking statutorily mandated information on ICs (such

as those at NPL sites) and, for that reason, it should be run by the federal government. Mr. Bellot added that the system must be coordinated with a number of federal, state and local agencies. He suggested that the EPA was in the best position to make that happen. Mr. Wenzlau commented that a balanced approach would be more effective. He suggested that some existing state systems fail to serve interested parties because they are too narrow. Mr. Bellot added that EPA's initial design plans for an IC system take into account the strengths and weakness of currently operating tracking systems. EPA does not intend to disregard those systems. Rather, the Agency will incorporate existing systems into a national system.

Dr. Gray asked the group if they were aware of the benefits associated with the use of ICs. He commented that ICs help the regulated community by allowing limited cleanup of contamination when complete remediation is unwarranted. Ms. Romeo asked how people can know about residual contamination and restrictions on land use imposed by ICs. Mr. Bellot commented that finding ICs depends on the type of IC used. If it is a deed notice, for example, it should be at a county recorders office. If, however, the IC is incorporated in a consent decree, the document would be located at the appropriate EPA Regional office. He added that a tracking system is needed to bring this information into one place so interested parties can access fundamental information associated with IC use.

Ms. Morrissey commented that a national system that centralizes IC information would make her products cheaper. Allowing underwriters to have access to IC information would enable them to make more informed decisions. In other words, underwriters could limit coverage by taking into account ICs as opposed to denying coverage because of too many unknowns. Ms. Morrissey added that the overriding concern is not so much that people cannot find information about ICs but rather what happens when ICs are violated. She said that an IC system should include information on the consequences of violating IC restrictions. She said that some information on ICs is available, but it is hard to find. Dr. Zaragoza said that EPA is preparing guidance that addresses the implications of IC violations.

The facilitator asked the group to begin discussing the data categories in the matrix. She said that the system will operate more like a network rather than having all the information in one place. The system would provide access to some documents but would also provide links to other information. She said that EPA needs to know what information is most important to the participants and their clients. She also asked the group to tell her whether they would be good sources for the information of each data category.

Appendix 1

Site ID

The discussion focused on how sites identified in existing tracking systems could be incorporated into a coordinated national system. The group agreed that sites would have to be identified under a uniform system. Mr. Bellot added that assigning a site ID was important when querying the database for site information.

The group agreed that “Site” ID was Grade A.

Program Information

Mr. Bellot explained that sites are addressed under various federal and state programs. Including program information would allow users to determine if a site was addressed by Resource Conservation and Recovery Act (RCRA), CERCLA or a State program.

The group agreed that “Program Information” was Grade A.

Site Name

Mr. Perry said that this category would be difficult to apply to large residential areas. He suggested that it is more appropriate for single lot industrial properties.

The group agreed that “Site Name” was Grade A.

Site Address

Mr. O’Connor asked how sites with multiple addresses would be incorporated into the system. Mr. Bellot suggested that his question would be answered when the group discussed a different category.

Ms. Romeo said that her organization, ALTA, would be a good source for “Site Addresses”.

The group agreed that “Site Address” was Grade A.

Locality

The facilitator mentioned other focus groups were interested in whether the site was in a tribal area. Mr. Mathews said that this information would be very important to the insurance industry.

Ms. Romeo said that ALTA would be a good source for “Locality”.

The group agreed that “Locality” was Grade A.

EPA Region

The group agreed that “EPA Region” was not an important data category in their industry.

The group agreed that “EPA Region” was a Grade C.

Site Within 15 miles of Tribal Land Boundaries

The group agreed that “Site Within 15 miles of Tribal Land Boundaries” was a Grade C.

Federal Facility Flag

The group agreed that it was unimportant to them whether the site was a federal facility. A grade of C was allocated for “Federal Facility Flag.”

Congressional District

The group agreed that “Congressional District” was a Grade C.

Site Background

Dr. Gray asked whether this category would include a standard industrial code (SIC). He said that a SIC would enable users to access the history of industrial activity at a site and legal information pertaining to the property. The group continued to discuss what SICs are, whether they should be included in site backgrounds and how much information is appropriate for this data category.

The group concluded that “Site Background” was a Grade B.

Parcel Number

Participants differed as to the importance of this data category. Dr. Gray noted that parcel numbers change while Ms. Morrissey commented that this information can be accessed through various means. Mr. Perry said the parcel numbers are important because some parts of a property may be free of contamination while others are polluted.

Ms. Romeo said that ALTA would be good source for this data category.

The group conclude that “Parcel Number” was a Grade B.

Section, Township, Range

The group decided that “Section, Township, Range” was Grade B.

Ms. Romeo said that ALTA would be a good source for data on “Section, Township, Range.”

Site Reference Point

The group discussed whether it was possible to attain accurate latitude and longitude designations for sites. Mr. Perry suggested that this data element may be redundant and unnecessary. Mr. Perry added that it would be more useful to have a legal description of the property because this is an important facet of the title business. Ms. Morrissey commented

that it would very difficult to obtain accurate legal description of properties.

The group concluded that “Site Reference Point” was Grade A.

Site Reference Point Metadata

The group decided that “Site Reference Metadata” was Grade A.

Site Boundary

The group agreed that “Site Boundary” was a Grade A.

Ms. Romeo said that ALTA would be a good source for “Site Boundary” data.

The group decided that “Site Boundary” was Grade B.

Operable Unit(s)

Ms. Romeo said that ALTA would be a good source for information on “Operable Unit(s).”

The group decided that “Operable Unit(s)” was Grade C.

Hazardous Substance(s)

Mr. Wenzlau commented that Terradex is having difficulty deciding whether to report de minimis contamination. He said that it is hard to decide a level of contamination worth reporting. Dr. Gray added that it is also difficult to determine the relevance of some contaminants. He suggested that contamination can exist in soil naturally while other forms of contamination can dissipate over time. Mr. Bellot suggested that the IC tracking system is not going to be a full repository of site information. He said that users will be provided links for more specific site information. Dr. Zaragoza added that some information is better left to the program responsible for site cleanup. Mr. Smith suggested that it may be best to identify what is restricted and why it is restricted.

The group decided that “Hazardous Substance(s)” was Grade A. The facilitator suggested that more discussion is needed to determine what level of detail is necessary for this data category.

Media Impacted

Mr. Perry asked whether this information would be recorded in the deed records. Mr. Bellot said that it depends on the IC used. He said that a state water use law, for example, would not be listed in the property records. Mr. Perry asked why local ordinances and other ICs are not recorded in the property records. Mr. Bellot said that local recording offices do not allow incorporation of certain ICs into property records. He said that some ICs, like those included in large consent decrees and court orders, cannot be included in property records.

The group concluded that “Media Impacted” was Grade B.

Engineered Controls/Remedy

Mr. O'Connor commented that land transfer information is more important to his work than details about site remediation. Mr. Cribbin asked whether Mr. O'Connor's clients would be frustrated if existing engineering controls were not included in property reports. Mr. O'Connor said that remedy details are generally not needed.

The group decided that "Engineered Controls/Remedy" was Grade B.

Cleanup Authority

The participants said that this category was not useful. The group decided that "Cleanup Authority" was Grade C.

Site Lead

Mr. Perry commented that the importance of this data category will depend on the client. Dr. Gray added that information on cleanup authority can channel people towards agencies that will have more site information.

The Group decided that "Site Lead" was Grade A.

Site Status

The group said including more site location information would be better than data on site cleanup status.

The group decided that "Site Status" was Grade B.

Site Contact(s)

Mr. Bellot said that this data category would identify the agency responsible for remediation of a site rather than contacts for IC monitoring and implementation. He asked the group where they would want to get site specific information. Mr. O'Connor said that he follows up with the entity that does the actual cleanup and his clients follow up with the program agency if necessary. Mr. Wenzlau added that the Terradex system has five site contact categories: the responsible party, the agent for the responsible party, the local land use authority, the local water agency, and the environmental regulatory agency.

The group decided that "Site Contact(s)" was Grade A.

Appendix 2

IC ID

The group decided that "IC ID" was Grade A.

IC Description

The facilitator explained the purpose of this data category. She said that it would provide information on the type IC implemented. Dr. Zaragoza added that identifying the type of IC will help EPA determine what ICs are the most effective. Mr. Wenzlau commented that land use control is mostly a matter of state law. He said that it would be difficult to have IC terminology that applies to all states. In reply, Mr. Bellot said that the plan is to make a list that goes to the lowest common denominator. It would be more of a general rather than specific description of the IC used. Mr. Wenzlau said that state officials want to see terminology used in their state programs. He added that creating generic terms may result in less state interest in the national tracking system. The facilitator said that past focus groups have disagreed on whether there needs to be categories and subcategories. Mr. Bellot said that the list needs to be descriptive enough to satisfy everyone. Dr. Gray commented that a general description may convey enough meaning for some, but not others. He suggested that a lawyer performing a due diligence search may need to know more about the IC in place on a site while others would be confused with specific terminology. He said that it is essential to identify what activity is prohibited by an IC. Dr. Zaragoza said there is a desire to distinguish between state and federal ICs. He agreed that the difference between an easement and a covenant is of questionable relevance to the general public. He said that at this point the system should focus on the needs of the public.

Although the group did not agree on how specific the IC description should be, there was agreement that some form of description was important. Thus, the group concluded that “IC Description” was Grade A.

IC Category

The group decided that “IC Category” was Grade B.

IC Sub-Category

The group decided that “IC Sub-Category” was Grade C.

Media of Concern

The group decided that “Media of Concern” was Grade A.

IC Objective(s)

The facilitator explained that ICs are often implemented to prevent activities such as drilling or drinking ground water. Mr. Wenzlau commented that links to specific media restricted can cause confusion on exactly what type of media is affected by contamination. For example, connecting a land use limitation to ground water use can cause ambiguity. Mr. Bellot asked whether a query could be made for only groundwater contamination in the Terradex system. Mr. Wenzlau said that the Terradex system could produce results to a query for ground water contaminated sites.

The group decided that “IC Objective(s)” was Grade A.

Remedy Protected by IC

The group decided that “Remedy Protected by IC” was Grade C.

Activity or Use Limitation of IC

The group decided that “Activity or Use Limitations of IC” was Grade A.

Hazardous Substances Associated with the IC

Dr. Gray said that the importance of this data category depends on the audience using the site. Mr. Wenzlau said that identifying a specific hazard is better than a general site-wide description of the impacted area. He said that a properties often have ICs for relatively small amounts of contamination. By specifying the limited area affected by the IC the goal of redevelopment is furthered.

The group decided that “Hazardous Substances Associated with the IC” was Grade A.

IC Boundary

Ms. Romeo commented that ALTA would be a good source for “IC Boundary” data.

The group decided that “IC Boundary” was Grade A.

Conveyance of Property Rights to EPA

Mr. Perry commented that this data category is important in the title industry. Mr. Wenzlau commented that it is not important for purposes of health and safety.

The group concluded that “Conveyance of Property Rights to EPA” was Grade A.

State Assurances and Third Party Enforcement Rights

The group decided that “State Assurances and Third Party Enforcement Rights” was Grade C.

Risk Factors/Anticipated Future Land Use

Dr. Gray commented that calculating risk assessment for contaminated sites is complicated. He said that New Jersey has a three tier risk assessment classification system: high, medium and low. Risks that are voluntarily assumed are accepted by the public while risks that are forced on people are rejected. He suggested that it is difficult to determine the level of risk that is appropriate to report. The facilitator asked whether this data is simply too complicated to report. Dr. Gray said that if risk is defined in a general way then it is helpful. The difficulty is defining the precise risk caused by residual contamination.

The Group decided that “Risk Factors/Associated with Future Land Use” was Grade C.

Anticipated Future Land Use

The facilitator explained that this data category would show what types of future land use the remedy accommodates. Mr. Wenzlau commented that this data category covers that same information contained in several previously discussed data categories. He said that it is important to send a clear message. Sending two or three versions of the same information makes issues more complicated than necessary. The facilitator asked the group if they thought this data category clouded the issue. The group thought that data on anticipated future land use would be helpful for only a small percentage of likely users of the system and, for most users, would cause confusion.

The group decided that “Anticipated Future Land Use” was a Grade D.

Contact(s)

The participants determined this data category to be unimportant.

The Group decided that “Contact(s)” was Grade C.

Appendix 3

IC Called for by the Decision Document

Mr. Perry asked if this data category would inform users of the location where they can reference the source document. Mr. Bellot said that this IC source document would inform users as to whether the IC was required by a federal, state or local authority. Mr. Perry said it would be very useful to know where the decision documents came from. Dr. Gray said that it is helpful to know if an IC can be terminated if certain conditions are met. Such information is often only in decision documents. Mr. Bellot said that this information is covered in a different data category. Mr. Cribbin suggested that the existence of decision documents - and general IC details - should always be listed in property records. He added that lawyers would want to check the actual decision document to ensure that the abstract in the property records was correct. The facilitator said that creating a notice by reference is a detailed issue and would require a separate discussion.

The group decided that “IC Called for by Decision Document” was Grade A.

Implementation Status

The group decided that “Implementation Status” was Grade A.

Duration

The group decided that “Duration” was Grade A.

Implementation Party

Mr. Bellot asked the group if it was important for them to know who is responsible for monitoring. He said that sometimes current and future land owners are required to fulfill IC monitoring responsibilities. Ms. Morrissey said that it would be important to a smaller part of her clients. Other participants said that the monitoring party is very important.

The group decided that “Implementation Party” was Grade A.

Implementation Issues

The group decided that “Implementation Issues” was Grade C.

Termination Status

The group decided that “Termination Status” was Grade A.

Termination Initiation Party/Termination Approval Party

The facilitator explained that this data category would identify the party responsible for termination of the IC. Mr. Bellot explained that multiple parties are often responsible for termination of ICs. Mr. Wenzlau commented that the Terradex system avoids various scenarios and directs users to the appropriate agency official in charge of the IC for the site.

The group decided that “Termination Initiation Party/Termination Approval Party” were Grade C.

Modification Information

The group decided that “Modification Information” was Grade A.

IC Implementation Documents

The group decided that “IC Implementation Documents” was Grade A.

Contact(s)

The group decided that “Contact(s)” was Grade A.

Appendix 4

IC Monitoring Requirements

Ms. Morrissey asked whether this data category would identify instances when the monitoring requirements were not fulfilled. Mr. Bellot said that it would include a description of findings made by IC compliance auditors. The facilitator added that this category would include more than just a monitoring schedule. Mr. O'Connor commented that findings are more important than frequency of reporting. Ms. Morrissey suggested that dates should be included in the findings. Dr. Gray added that this data category should include a total history of findings. Mr. Bellot said that past findings would be included. Dr. Gray said that a key feature of the New Jersey system is that it allows users to identify problems with ICs. He added that it is beneficial to specify how breaches of ICs affect public health.

The group concluded that the "IC Monitoring Requirements" was Grade C.

CERCLA 5 Year Review

The group concluded that "CERCLA 5 Year Review" was Grade C.

Notification Provisions for IC Breaches

Mr. Wenzlau said that there is little point to having ICs if there are no established notification systems. The facilitator asked whether it would be more important to identify the notification procedures as opposed to the responsible notification agency. Mr. Wenzlau said that it would be better to identify the notification agency.

The group agreed that "Notification Provisions for IC Breaches" was a Grade B.

IC Boundary Information Changes

Mr. Perry said that, from a historical perspective, these data could be important. Other participants said that it was of some importance.

The group agreed that "IC Boundary Information Changes" was a Grade B.

Enforcement Party

The group agreed that "Enforcement Party" was a Grade B.

Enforcement Authority

Mr. Wenzlau commented that the enforcement authority is implied when covenants are used. Mr. Bellot said that various types of ICs are used with different enforcement authorities. Dr. Gray said that some ICs used in New Jersey, like deed notices, do not have enforcement authority. They simply alert the public of contamination. Mr. Bellot commented that informational devices like deed notices are required by consent decrees or court orders. In these cases, implementation of informational ICs can be enforced through administrative or judicial processes.

The group decided that “Enforcement Authority” was a Grade B.

IC Related Enforcement Action

The group agreed that “IC Related Enforcement Action” was a Grade B.

IC Related Enforcement Action Resolution

The group agreed that “IC Related Enforcement Action Resolution” was a Grade B.

IC Damages/Penalties

The group decided that “IC Damages/Penalties” was a Grade of B.

Monitoring/Enforcement Documents

Mr. O’Connor asked whether this data category differs from Monitoring Report. Mr. Bellot said that Monitoring/Enforcement Documents would include a more detailed information.

The group agreed that “Monitoring/Enforcement Documents” was a Grade B.

IC Design Costs

The group agreed that “IC Design Costs” was a Grade C.

IC Implementation Costs

The group agreed that “IC Implementation Costs” was a Grade C.

IC Monitoring Costs

The group agreed that “IC Monitoring Costs” was a Grade C.

IC Enforcement Costs

The group agreed that “IC Enforcement Costs” was a grade C.

Total IC Costs

The group agreed that “Total IC Costs” was a grade C.

Remedial Cost Savings from the Use of ICs

Mr. Cribbin commented that insurance underwriters and land buyers would likely want this information. Dr. Zaragoza commented that this data category would identify how monitoring activities can be done in a cost efficient manner.

Dr. Gray commented that getting an accurate figure of costs saved by the use of ICs would be difficult. Costs associated with full remediation are difficult to compute unless a property is completely rededicated. Mr. Bellot said that estimating the costs of remediation is possible but the difficulty lies in determining the costs of IC implementation and monitoring. Dr. Gray added that goals of remediation frequently change and that adds to the difficulty of establishing a costs savings figure. The facilitator summarized the comments made by group on this data category. She said that the group's comments suggested that Remedial Costs Savings from the Use of ICs may be too difficult to quantify.

The group agreed that "Remedial Costs Savings from the Use of ICs" was a Grade B.

IC Costs Contact

The group agreed that "IC Costs Contact" was a Grade of C.

Municipal Boundaries

Dr. Zaragoza said that other agencies would likely provide better information to those interested in site development. Ms. Romeo asked whether systems already in place have general mapping information. Dr. Gray said that GIS systems are different than maps in that they provide more detailed information. Mr. Bellot said that a GIS system is needed so that users can see the details of ICs. The facilitator asked whether the discussion pertained to the site information or mapping IC details. Mr. Bellot said that it is necessary to map the specific details of the IC.

The group agreed that "Municipal Boundaries" was a Grade A.

Transportation/Roads

The group agreed that "Transportation/Roads" was a Grade A.

Hydrography

The group agreed that "Hydrography" was a Grade A.

Hypsography

The group agreed that "Hypsography" was a Grade A.

Land Use/Land Cover

Dr. Gray said that this category should identify receptors.

Mr. Wenzlau said that it is very difficult to obtain accurate land use information.

The group agreed that “Land Use/Land Cover” was a Grade A.

Geographic Names

The group agreed that “Geographic Names” was a Grade C.

Aerial Imagery

Mr. Wenzlau said that it is very important to have aerial imagery because of the difficulty associated with finding ICs on maps.

The group agreed that “Aerial Imagery” was a Grade B.

Debriefing

The facilitator asked the group if the matrices were missing any relevant information. Mr. O’Connor commented that site historical data should be included in the system. Mr. Bellot said that links to other sites will be provided for further information on site history. He said that a more recent site history would be listed in the system.

Mr. Wenzlau suggested that it would be helpful to have a record to see where the IC is located.

The facilitator concluded that the group rated the following as the most important data categories.

1. Location of the site
2. Site Boundaries
3. Contact Information for the Party responsible for IC monitoring
4. Responsible Regulatory Agency

Adjournment

Mr. Bellot and Dr. Zaragoza thanked the participants for their thoughts on behalf of EPA/OERR, and proceeded to close the focus group discussion.